# A Life in the Program.

## Michael Allen

## Marshall's Own Space Shuttle Transition Manager

When Mike Allen talks about his life and work, it is with the easy manner of someone who is comfortable in his surroundings and a little of that Alabama drawl. Though Allen is the Space Shuttle Transition Manager for Marshall Space Flight Center, he sounds mildly surprised as he counts back and realizes he has been a part of the NASA landscape for more than 20 years. Originally from Childersburg, a little town south of Birmingham, Allen has worked most of his professional life in Huntsville, Ala., just a stone's throw from where he grew up. He graduated high school in 1975, attended junior college for a couple of years and then transferred to Auburn University. When he graduated from Auburn in 1981, he went to work for a construction company. It wasn't until October of 1986 that Allen found himself at NASA.

"It was kind of interesting, I was looking for another job and a friend of mine – an old college roommate – called me up and said that there was an opening here at Marshall," Allen said. "He was working up here and really enjoyed it, so I interviewed and they hired me."

Allen seems matter-of-fact about his hiring, until he talks about when he first saw the shuttle.

**A Humbling Realization**

"Well, when I first came to Marshall, I started out as an independent assessment analyst in the comptroller's office," Allen said. "I worked there for about seven months and then moved over to the shuttle. It was really eye opening when I got here and I thought, 'Gosh, I'm working for these guys and these are brilliant people and here I am in the middle of this and we are going back into space (after Challenger) and we are going to fly this thing again.' The space shuttle was something you saw on television and if you had never been in the middle of it you didn't know what it took (to support it). It was really kind of humbling,"

He never pictured himself doing something like that, or having the ability or opportunity to do it.

## "I never pictured myself doing something like this ..."

"All of sudden, I was right there in the middle of watching stuff get built," Allen said. "It was interesting because I had already done construction for five years and been involved in putting up buildings and things of that nature. But you know, when you saw the work that went into it, when you saw things being built for the shuttle for Return to Flight ... After all of the things that had happened, it was really amazing. The techniques that you used and the amount of effort that you put into it – well, it was just astonishing."

Pictured above: The X-34 demonstrator on the ground at Dryden. NASA shut down the X-34 project in early 2001.

**From Project to Program**

Allen worked on the solid rocket boosters for about two years, and then transferred to the space shuttle main engine. He worked on the main engine for six years before a one-year stint at headquarters in Washington, D.C. At headquarters, Allen was the shuttle liaison to the Deputy Associate Administrator for the Space Shuttle Program. He returned to Marshall and went into the X-34 program, working as a deputy for two years and eventually moved into the project manager's slot. Allen worked as the project manager until 2000, when he went into the engineering directorate to run the propulsion test lab until the transition effort began in 2006.

"You know, I really feel like I've been lucky in that I've been in the project side of the house and really understood how the project was run from a shuttle standpoint," Allen said. "And then I was also managing one of the X programs and it was a completely different idea of how to go about doing things. In the X program, you did everything during the era of 'faster, better, cheaper,' while in the shuttle program you had to make sure that everything was perfect and maintain that rigor. Having those two kinds of extremes and then going down and working in engineering directorate to run a test lab, which is a service organization ... I've done a little of both sides."

Pictured above: Testing an SSME at Stennis Space Center.

Allen said he especially enjoyed his years in the propulsion test lab because of the hands-on aspect of the work.

"We did all the development work for upgrades, or anything like that, on the main engine," Allen said. "We didn't do the big engine testing – that was done at Stennis, but we've got the capability here with our big testing labs. You really saw how each one of the parts of the main engines and solid motors and everything else that they needed – how they really worked, because you were testing components more than you were testing the engines as a whole. You had to build it up and then you actually got to flip the switch and see smoke and fire come out of the right end of it. It was always fun."

"... you actually got to flip the switch and see smoke and fire come out ..."

**In Transition**

Over 20 years at Marshall has given Allen the right set of tools for his current position. He knows the people and the facility, and is able to apply his experience in different programs and labs to the current transition effort.

As the Space Shuttle Transition Manager for Marshall, Allen actually fulfills two roles – center lead and space shuttle lead. On the shuttle side, Allen's main focus is to oversee the coordination of the projects – every aspect from the people to the property – and then to interface back to program's shuttle transition office.

"All of the coordination has to do with pulling budgets together and making sure that everybody's talking off the same sheet of music," he explained.

**No Instruction Manual for Transition**

As the center lead, Allen is responsible for understanding what Marshall's center requirements are and making sure nobody's doing anything that will have an adverse effect.

"When I first came over here, to the Transition office in 2006, I was actually the external tank transition manager, and Sandra Coleman had the responsibility of overall shuttle transition," Allen said. "She retired, and they asked me to take over. And, yeah, it was kind of just hit the ground running and catch up."

He wasn't on his own, however. Each project at Marshall has a dedicated transition lead, and they were already in place. And with Allen's shuttle experience, he knew what they were talking about when someone mentioned shutting down this or getting rid of that.

Even so, he has yet to stop running.

"It has been a whirlwind for two years, and it's only increasing," he said. "There is more and more activity – just as fast as we can go."

Allen is not daunted by the fact that there is no instruction manual for transition.

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"What we are finding is that each organization has always done things differently," Allen said. "And, as we transition this big monster called 'shuttle' down, we are finding out, OK, there's really no road map on how to do this."

Allen says within the larger umbrella of the shuttle program organizations like procurement – the property people – know what they're doing because they are constantly moving equipment around within the program. But preparing to retire an entire program's worth of equipment is a whole other matter.

"We went through a long learning process of figuring out what can you do with property when you get rid of it," Allen reflected. "And, we've really come a long way and now our guys know as much as anybody else."

**Four Contractors, Four Processes, All Complicated**

Marshall also has four contractor groups – with four different processes for shutting down programs – to consider as the transition takes place.

"There were a lot of things where we thought, well you just kind of handed it over to somebody and said 'we're through' and they did their magic and it went away. What we found as we went through this process was the center of operation guys had a very good process in place and then we found out also that every contractor has their own process as well," Allen said jokingly.

And this methodology applies to literally everything, from the smallest pieces – nuts and bolts – to the biggest.

"For each piece of property, somebody has to verify that it is there, and then we go through a process of seeing who needs it – does anybody else in the government need it, does anybody at NASA need it?" Allen asked. "If not, you go on to the next process and then you hand it over to the property people within the organizations, either to a contractor shop, or a center – something of that nature. And, they have a process of disposing of it."

Disposing of it could mean a number of things. It could be sold for someone else's use, or as scrap metal. And there are plenty of museums out there, eager to get their hands on shuttle memorabilia. Allen says there is a tremendous desire out there for all of this hardware.

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"One of the things we are trying to figure out is who gets what, because I think we're going to have more people asking for pieces of property than we can give away."

Whether the property finds a home in a museum or in a warehouse, it's not as simple as just handing it over and walking away.

"There is a long process and it has taken us a while to get our hands around it," Allen said. "We really didn't understand the complexity of everything we went through initially. We've built all of this stuff, and we've thought about how we fly it and how we operate it. But we really had never figured out how to stop doing it. And, I think everybody within the transition organization, not only here but all over, it has really come as recognizing this as a bigger job than we ever thought it would be."

**Multiple Programs, Multiple Hats**

But the shuttle is just one part of transition at Marshall and across NASA. Allen says that many people at his center

are already working on the other part: Constellation.

"We are really lucky in that aspect because we have similar Ares projects as to what we have in the shuttle," Allen said. "The solid rocket motor and boosters, for instance, will essentially just transition over in whole to Ares 1 First Stage. So, the project guys and the engineering guys today are working kind of hand in hand. And the same thing happens for the engine and the external tank."

Because of that, Allen said, transition is not as much of a worry at Marshall as it might be.

Pictured from left to right: Cody McPeters, Mike Allen, Steven Brooks, Kathy McMillan and Len Bell.

"There are issues to work and hardware to go build and procure," he said. "Everybody has been so busy that I don't think that they've had a chance to really think about the shuttle going away."

**Not Quite Business As Usual**

The same could be said of the Michoud Assembly Facility, which Marshall manages. It is becoming a multi-use facility, going from shuttle external tank exclusively to welcoming two new elements of Constellation. Marshall also oversees the Santa Susana Field Laboratories in California, which are being shut down this year. The remediation, demolition and restoration of that facility will be a large undertaking as well. So for Marshall, it is not quite business as usual.

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"I think for most of the folks here they are just, they are so focused on shuttle and flying shuttles right now that they are really not thinking about anything else," Allen said. "And you know it is great for us – for Marshall and the shuttle program – because we have this workforce that is just focused in on what they love to do. They are going along and saying, 'You know, I love to do this, and I'll do it till the very end, and then we'll do something else.'"

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